


ICF International

Environmental Services Assistance Team, Region 9
 1337 South 46th Street, Building 201, Richmond, CA 94804-4698
 Phone: (510) 412-2300; Fax: (510) 412-2304.

MEMORANDUM

TO: Karen Jurist, Remedial Project Manager
 Site Cleanup Section 3, SFD-7-3
 USEPA Region 9

THROUGH: Joe Eidelberg, Chemist
 Quality Assurance (QA) Program, MTS-3
 USEPA Region 9

Joseph Eidelberg
 Digitally Signed

FROM: Kathy O'Brien, Project Manager
 Environmental Services Assistance Team (ESAT) Region 9
 ICF International

ESAT Contract No.: EP-W-13-029
 Technical Direction Form No.: 10106079

DATE: June 9, 2015

SUBJECT: Review of Analytical Data, **Tier 3**

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Jervis B. Webb Co.
Site Account No.:	09 WR QB 00
Case No.:	45139
SDG No.:	Y9SN2
Laboratory:	CompuChem (LIBRTY)
Analysis:	Low Level Volatiles
Samples:	20 Soil Samples
Collection Date:	March 9 and 11, 2015
Reviewer:	Santiago Lee, ESAT

EXES Data Manager has been updated; the dynamic deliverables were regenerated and are available on the SMO Portal.

If there are any questions, please contact Joe Eidelberg (QA Program/EPA) at (415) 972-3809.

Attachment

cc: Cynthia Gurley, CLP PO USEPA Region 4
 Steve Remaley, CLP PO USEPA Region 9
 Richard Bauer, EPA COR for ESAT Region 9

CLP PO: FYI Action
 SAMPLING ISSUES: Yes No

10106079/17999/45139/Y9SN2-LV Rpt

Data Validation Report - Tier 3

Case No.: 45139
SDG No.: Y9SN2
Site: Jervis B. Webb
Laboratory: CompuChem (LIBRTY)
Analysis: Low Level Volatiles
Reviewer: Santiago Lee, ESAT
Date: June 9, 2015

I. SDG SUMMARY

For Sample Information and Laboratory QC, refer to EXES National Functional Guidelines (NFG) Report #06, *Analytical Sample Listing*.

Field QC

Field Blanks (FB): Not Collected
Equipment Blanks (EB): Not Collected
Trip Blanks (TB): Not Collected
Background Samples (BG): Not Collected
Field Duplicates (D1): Y9SN5 and Y9SN6
Field Duplicates (D2): Y9SP5 and Y9SP6
Field Duplicates (D3): Y9SP8 and Y9SP9

Tables

- 1A: Analytical Results with Qualifications
- 1B: Data Qualifier Definitions for Organic Data Review

CLP PO Action

Nondetected results for 1,4-dioxane in all samples, all method blanks, and the storage blank are qualified as rejected (R) due to low relative response factors (less than 0.0050) in the initial calibration (see Comment A).

Sampling Issues

Sample Y9SQ0 is not listed on the chain of custody records (COCs).

Additional Comments

The trichloroethene present in samples Y9SN5, Y9SN6, Y9SN7, Y9SN8, Y9SP8, Y9SQ0, Y9SQ1, Y9SQ2, and Y9SW9 and method blank VBLKNE was incorrectly reported as nondetected (i.e., false negatives). The laboratory submitted revised data (Form I and quantitation report) and mass spectra upon request, on 05/20/15 (see Table 1A for concentrations). The revised results have been entered into the EXES Data Manager. The laboratory indicates that there was a mass shift for trichloroethene (i.e., the quantitation ion shift from 95 to 96).

In addition to laboratory artifacts (retention times of 13.9 and 18.0 minutes), a tentatively identified compound (TIC) is found in samples Y9SN2, Y9SN6, Y9SN7, Y9SW9, and Y9SX0 (see attached Form 1Js).

The laboratory performed manual peak integration on chromatograms for some calibrations and samples. Manual integrations were reviewed and found to be in compliance with CLP Statement of Work (SOW) requirements.

This report was prepared in accordance with the following documents:

- *Request for Quote (RFQ) for Modified Analysis*, Modification Reference Number: 2298.2, March 3, 2015;
- *USEPA Contract Laboratory Program Statement of Work for Organics Analysis, Multi-Media, Multi-Concentration*, SOM01.1, May 2005;
- *Modifications Updating SOM01.1 to SOM01.2*, Amended April 11, 2007; and
- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, June 2008.

For technical definitions, refer to *Exhibit G (Glossary of Terms)*, *USEPA Contract Laboratory Program Statement of Work for Organics Analysis, Multi-Media, Multi-Concentration*, SOM01.1, May 2005.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	<u>Parameter</u>	<u>Acceptable</u>	<u>Comment</u>
1	Holding Time/Preservation	Yes	
2	GC/MS Tune/GC Performance	Yes	
3	Initial Calibration	No	A
4	Continuing Calibration Verification (CCV)	Yes	
5	Laboratory Blanks	Yes	C
6	Field Blanks	N/A	
7	Deuterated Monitoring Compounds (DMCs)	Yes	
8	Matrix Spike/Matrix Spike Duplicates (MS/MSDs)	Yes	
9	Internal Standards	Yes	
10	Compound Identification	Yes	
11	Compound Quantitation	Yes	B
12	System Performance	Yes	
13	Field Duplicate Sample Analysis	No	D

N/A = Not Applicable

III. VALIDITY AND COMMENTS

- A. Nondetected results for the following analyte are qualified as rejected due to low relative response factors (RRFs) in initial calibration and are flagged "R" in Table 1A.
- 1,4-Dioxane in all samples, all method blanks, and storage blank VHBLKYD.

The RRFs of 0.0037, 0.0048, and 0.0046 are reported for 1,4-dioxane in 5.0 µg/L, 100 µg/L, and 200 µg/L standards, respectively, of the initial calibration;

additionally, the average RRF is 0.0047. These values are below the 0.0050 validation criterion. Results listed above are considered unusable (R).

- B. Results above the method detection limit (MDL) but below the contract required quantitation limit (CRQL) are estimated and flagged "J" in Table 1A. Results are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in analytical precision near the quantitation limit.
- C. The following results are qualified as nondetected due to method blank and storage blank contamination and are flagged "U" in Table 1A.
 - Acetone, trichloroethene, and toluene in samples Y9SP0, Y9SX1, and Y9SX2.
 - Methylene chloride in samples Y9SN2, Y9SN6, Y9SP6 through Y9SQ0, Y9SQ2, and Y9SX0.

Acetone, trichloroethene, and toluene are present in method blank VBLKNE; methylene chloride is present in method blanks VBLKND and VBLKNG and storage blank VHBLKYD (see Table 1A for concentrations).

- D. In the analysis of the field duplicate pairs, the following outlier (relative percent difference greater than 25%) is reported.

Analyte	Y9SN5 (D1) Concentration, µg/kg	Y9SN6 (D1) Concentration, µg/kg	RPD
Trichloroethene	1.5	8.8	142

The effect on data usability is not known.

Table 1A: Analytical Results with Qualifications

Lab	CompuChem (LIBRTY)	SDG	Y9SN2	Case	45139	Site	Jervis B. Webb	SOW	SOM01.2			
Sample Location	Y9SN2 N/A Field_Sample Soil/Low			Y9SN3 N/A Field_Sample Soil/Low			Y9SN4 N/A Field_Sample Soil/Low			Y9SN5 (D1) N/A Field_Sample Soil/Low		
Type	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
Matrix/Level	6.02	6.55	6.55	13.49	13.49	13.49	13.49	13.49	13.49	13.49		
Dilution Factor	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg		
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Dichlorodifluoromethane	4.7	U		5.5	U		4.9	U		5.3	U	
Chloromethane	4.7	U		5.5	U		4.9	U		5.3	U	
Vinyl chloride	4.7	U		5.5	U		4.9	U		5.3	U	
Bromomethane	4.7	U		5.5	U		4.9	U		5.3	U	
Chloroethane	4.7	U		5.5	U		4.9	U		5.3	U	
Trichlorofluoromethane	4.7	U		5.5	U		4.9	U		5.3	U	
1,1-Dichloroethene	4.7	U		5.5	U		4.9	U		5.3	U	
1,1,2-Trichloro-1,2,2-trifluoroethane	4.7	U		5.5	U		4.9	U		5.3	U	
Acetone	6.6	J	B	7.8	J	B	5.2	J	B	4.5	J	B
Carbon disulfide	4.7	U		5.5	U		4.9	U		5.3	U	
Methyl acetate	4.7	U		5.5	U		4.9	U		5.3	U	
Methylene chloride	4.7	U	C	5.5	U		4.9	U		5.3	U	
trans-1,2-Dichloroethene	4.7	U		5.5	U		4.9	U		5.3	U	
Methyl tert-butyl ether	4.7	U		5.5	U		4.9	U		5.3	U	
1,1-Dichloroethane	4.7	U		5.5	U		4.9	U		5.3	U	
cis-1,2-Dichloroethene	4.7	U		5.5	U		4.9	U		5.3	U	
2-Butanone	9.5	U		11	U		9.9	U		11	U	
Bromochloromethane	4.7	U		5.5	U		4.9	U		5.3	U	
Chloroform	4.7	U		5.5	U		4.9	U		5.3	U	
1,1,1-Trichloroethane	4.7	U		5.5	U		4.9	U		5.3	U	
Cyclohexane	4.7	U		5.5	U		4.9	U		5.3	U	
Carbon tetrachloride	4.7	U		5.5	U		4.9	U		5.3	U	
Benzene	4.7	U		5.5	U		4.9	U		5.3	U	
1,2-Dichloroethane	4.7	U		5.5	U		4.9	U		5.3	U	
1,4-Dioxane	95	R	A	110	R	A	99	R	A	110	R	A

Lab CompuChem (LIBRTY)	SDG	Y9SN2	Case	45139	Site	Jervis B. Webb	SOW	SOM01.2				
Sample Location Type Matrix/Level Dilution Factor % Moisture Units	Y9SN2 N/A Field_Sample Soil/Low			Y9SN3 N/A Field_Sample Soil/Low			Y9SN4 N/A Field_Sample Soil/Low			Y9SN5 (D1) N/A Field_Sample Soil/Low		
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Trichloroethene	4.7	U		5.5	U		4.9	U		1.5	J	B,D
Methylcyclohexane	4.7	U		5.5	U		4.9	U		5.3	U	
1,2-Dichloropropane	4.7	U		5.5	U		4.9	U		5.3	U	
Bromodichloromethane	4.7	U		5.5	U		4.9	U		5.3	U	
cis-1,3-Dichloropropene	4.7	U		5.5	U		4.9	U		5.3	U	
4-Methyl-2-pentanone	9.5	U		11	U		9.9	U		11	U	
Toluene	0.66	J	B	0.67	J	B	4.9	U		5.3	U	
trans-1,3-Dichloropropene	4.7	U		5.5	U		4.9	U		5.3	U	
1,1,2-Trichloroethane	4.7	U		5.5	U		4.9	U		5.3	U	
Tetrachloroethene	4.7	U		5.5	U		4.9	U		5.3	U	
2-Hexanone	9.5	U		11	U		9.9	U		11	U	
Dibromochloromethane	4.7	U		5.5	U		4.9	U		5.3	U	
1,2-Dibromoethane	4.7	U		5.5	U		4.9	U		5.3	U	
Chlorobenzene	4.7	U		5.5	U		4.9	U		5.3	U	
Ethylbenzene	4.7	U		5.5	U		4.9	U		5.3	U	
o-Xylene	4.7	U		5.5	U		4.9	U		5.3	U	
m,p-Xylene	4.7	U		5.5	U		4.9	U		5.3	U	
Styrene	4.7	U		5.5	U		4.9	U		5.3	U	
Bromoform	4.7	U		5.5	U		4.9	U		5.3	U	
Isopropylbenzene	4.7	U		5.5	U		4.9	U		5.3	U	
1,1,2,2-Tetrachloroethane	4.7	U		5.5	U		4.9	U		5.3	U	
1,3-Dichlorobenzene	4.7	U		5.5	U		4.9	U		5.3	U	
1,4-Dichlorobenzene	4.7	U		5.5	U		4.9	U		5.3	U	
1,2-Dichlorobenzene	4.7	U		5.5	U		4.9	U		5.3	U	
1,2-Dibromo-3-chloropropane	4.7	U		5.5	U		4.9	U		5.3	U	
1,2,4-Trichlorobenzene	4.7	U		5.5	U		4.9	U		5.3	U	
1,2,3-Trichlorobenzene	4.7	U		5.5	U		4.9	U		5.3	U	
1,2,3-Trichloropropane	4.7	U		5.5	U		4.9	U		5.3	U	

Com - Comments. Refer to the corresponding section in the Narrative for each letter.

D1, D2, etc. - Field Duplicate Pairs; FB - Field Blank, EB - Equipment Blank, TB - Trip Blank; BG - Background Sample.

Table 1A: Analytical Results with Qualifications

Lab	CompuChem (LIBRTY)	SDG	Y9SN2	Case	45139	Site	Jervis B. Webb	SOW	SOM01.2			
Sample Location	Y9SN6 (DI) N/A Field_Sample Soil/Low			Y9SN7 N/A Field_Sample Soil/Low			Y9SN8 N/A Field_Sample Soil/Low			Y9SP0 JW-SB10-2 Field_Sample Soil/Low		
Type	1.0	20.88	ug/kg	1.0	19.93	ug/kg	1.0	7.47	ug/kg	1.0	5.74	ug/kg
Matrix/Level												
Dilution Factor												
% Moisture Units												
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Dichlorodifluoromethane	5.8	U		5.4	U		5.3	U		5.5	U	
Chloromethane	5.8	U		5.4	U		5.3	U		5.5	U	
Vinyl chloride	5.8	U		5.4	U		5.3	U		5.5	U	
Bromomethane	5.8	U		5.4	U		5.3	U		5.5	U	
Chloroethane	5.8	U		5.4	U		5.3	U		5.5	U	
Trichlorofluoromethane	5.8	U		5.4	U		5.3	U		5.5	U	
1,1-Dichloroethene	5.8	U		5.4	U		5.3	U		5.5	U	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.8	U		5.4	U		5.3	U		5.5	U	
Acetone	7.4	J	B	6.2	J	B	5.8	J	B	11	U	C
Carbon disulfide	5.8	U		5.4	U		5.3	U		5.5	U	
Methyl acetate	5.8	U		5.4	U		5.3	U		5.5	U	
Methylene chloride	5.8	U	C	5.4	U		5.3	U		5.5	U	
trans-1,2-Dichloroethene	5.8	U		5.4	U		5.3	U		5.5	U	
Methyl tert-butyl ether	5.8	U		5.4	U		5.3	U		5.5	U	
1,1-Dichloroethane	5.8	U		5.4	U		5.3	U		5.5	U	
cis-1,2-Dichloroethene	5.8	U		5.4	U		5.3	U		5.5	U	
2-Butanone	12	U		11	U		11	U		11	U	
Bromochloromethane	5.8	U		5.4	U		5.3	U		5.5	U	
Chloroform	5.8	U		5.4	U		5.3	U		5.5	U	
1,1,1-Trichloroethane	5.8	U		5.4	U		5.3	U		5.5	U	
Cyclohexane	5.8	U		5.4	U		5.3	U		5.5	U	
Carbon tetrachloride	5.8	U		5.4	U		5.3	U		5.5	U	
Benzene	5.8	U		5.4	U		5.3	U		5.5	U	
1,2-Dichloroethane	5.8	U		5.4	U		5.3	U		5.5	U	
1,4-Dioxane	120	R	A	110	R	A	110	R	A	110	R	A

Lab CompuChem (LIBRTY)	SDG Y9SN2	Case 45139	Site Jervis B. Webb	SOW SOM01.2
Sample Location Type Matrix/Level Dilution Factor % Moisture Units	Y9SN6 (D1) N/A Field_Sample Soil/Low 1.0 20.88 ug/kg	Y9SN7 N/A Field_Sample Soil/Low 1.0 19.93 ug/kg	Y9SN8 N/A Field_Sample Soil/Low 1.0 7.47 ug/kg	Y9SP0 JW-SB10-2 Field_Sample Soil/Low 1.0 5.74 ug/kg
Compound	Result Flag Com	Result Flag Com	Result Flag Com	Result Flag Com
Trichloroethene	8.8 D	11	9.4	5.5 U C
Methylcyclohexane	5.8 U	5.4 U	5.3 U	5.5 U
1,2-Dichloropropane	5.8 U	5.4 U	5.3 U	5.5 U
Bromodichloromethane	5.8 U	5.4 U	5.3 U	5.5 U
cis-1,3-Dichloropropene	5.8 U	5.4 U	5.3 U	5.5 U
4-Methyl-2-pentanone	12 U	11 U	11 U	11 U
Toluene	5.8 U	5.4 U	5.3 U	5.5 U C
trans-1,3-Dichloropropene	5.8 U	5.4 U	5.3 U	5.5 U
1,1,2-Trichloroethane	5.8 U	5.4 U	5.3 U	5.5 U
Tetrachloroethene	5.8 U	5.4 U	5.3 U	5.5 U
2-Hexanone	12 U	11 U	11 U	11 U
Dibromochloromethane	5.8 U	5.4 U	5.3 U	5.5 U
1,2-Dibromoethane	5.8 U	5.4 U	5.3 U	5.5 U
Chlorobenzene	5.8 U	5.4 U	5.3 U	5.5 U
Ethylbenzene	5.8 U	5.4 U	5.3 U	5.5 U
o-Xylene	5.8 U	5.4 U	5.3 U	5.5 U
m,p-Xylene	5.8 U	5.4 U	5.3 U	5.5 U
Styrene	5.8 U	5.4 U	5.3 U	5.5 U
Bromoform	5.8 U	5.4 U	5.3 U	5.5 U
Isopropylbenzene	5.8 U	5.4 U	5.3 U	5.5 U
1,1,2,2-Tetrachloroethane	5.8 U	5.4 U	5.3 U	5.5 U
1,3-Dichlorobenzene	5.8 U	5.4 U	5.3 U	5.5 U
1,4-Dichlorobenzene	5.8 U	5.4 U	5.3 U	5.5 U
1,2-Dichlorobenzene	5.8 U	5.4 U	5.3 U	5.5 U
1,2-Dibromo-3-chloropropane	5.8 U	5.4 U	5.3 U	5.5 U
1,2,4-Trichlorobenzene	5.8 U	5.4 U	5.3 U	5.5 U
1,2,3-Trichlorobenzene	5.8 U	5.4 U	5.3 U	5.5 U
1,2,3-Trichloropropane	5.8 U	5.4 U	5.3 U	5.5 U

Com - Comments. Refer to the corresponding section in the Narrative for each letter.

D1, D2, etc. - Field Duplicate Pairs; FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample.

Table 1A: Analytical Results with Qualifications

Lab	CompuChem (LIBRTY)	SDG	Y9SN2	Case	45139	Site	Jervis B. Webb	SOW	SOM01.2			
Sample Location	Y9SP5 (D2) N/A Field_Sample Soil/Low			Y9SP6 (D2) N/A Field_Sample Soil/Low			Y9SP7 N/A Field_Sample Soil/Low			Y9SP8 (D3) N/A Field_Sample Soil/Low		
Type	1.0	1.0	1.0	7.91	7.71	6.84	13.74	ug/kg	ug/kg	ug/kg	ug/kg	
Matrix/Level												
Dilution Factor												
% Moisture Units												
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Dichlorodifluoromethane	5.8	U		5.7	U		6.3	U		5.4	U	
Chloromethane	5.8	U		5.7	U		6.3	U		5.4	U	
Vinyl chloride	5.8	U		5.7	U		6.3	U		5.4	U	
Bromomethane	5.8	U		5.7	U		6.3	U		5.4	U	
Chloroethane	5.8	U		5.7	U		6.3	U		5.4	U	
Trichlorofluoromethane	5.8	U		5.7	U		6.3	U		5.4	U	
1,1-Dichloroethene	5.8	U		5.7	U		6.3	U		5.4	U	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.8	U		5.7	U		6.3	U		5.4	U	
Acetone	6.9	J	B	3.9	J	B	6.5	J	B	7.1	J	B
Carbon disulfide	5.8	U		5.7	U		6.3	U		5.4	U	
Methyl acetate	5.8	U		5.7	U		6.3	U		5.4	U	
Methylene chloride	5.8	U		5.7	U	C	6.3	U	C	5.4	U	C
trans-1,2-Dichloroethene	5.8	U		5.7	U		6.3	U		5.4	U	
Methyl tert-butyl ether	5.8	U		5.7	U		6.3	U		5.4	U	
1,1-Dichloroethane	5.8	U		5.7	U		6.3	U		5.4	U	
cis-1,2-Dichloroethene	5.8	U		5.7	U		6.3	U		5.4	U	
2-Butanone	12	U		11	U		13	U		11	U	
Bromochloromethane	5.8	U		5.7	U		6.3	U		5.4	U	
Chloroform	5.8	U		5.7	U		6.3	U		5.4	U	
1,1,1-Trichloroethane	5.8	U		5.7	U		6.3	U		5.4	U	
Cyclohexane	5.8	U		5.7	U		6.3	U		5.4	U	
Carbon tetrachloride	5.8	U		5.7	U		6.3	U		5.4	U	
Benzene	5.8	U		5.7	U		6.3	U		5.4	U	
1,2-Dichloroethane	5.8	U		5.7	U		6.3	U		5.4	U	
1,4-Dioxane	120	R	A	110	R	A	130	R	A	110	R	A

Lab CompuChem (LIBRTY)	SDG Y9SN2	Case 45139	Site Jervis B. Webb	SOW SOM01.2
Sample Location Type Matrix/Level Dilution Factor % Moisture Units	Y9SP5 (D2) N/A Field_Sample Soil/Low 1.0 7.91 ug/kg	Y9SP6 (D2) N/A Field_Sample Soil/Low 1.0 7.71 ug/kg	Y9SP7 N/A Field_Sample Soil/Low 1.0 6.84 ug/kg	Y9SP8 (D3) N/A Field_Sample Soil/Low 1.0 13.74 ug/kg
Compound	Result Flag Com	Result Flag Com	Result Flag Com	Result Flag Com
Trichloroethene	5.8 U	5.7 U	6.3 U	0.87 J B
Methylcyclohexane	5.8 U	5.7 U	6.3 U	5.4 U
1,2-Dichloropropane	5.8 U	5.7 U	6.3 U	5.4 U
Bromodichloromethane	5.8 U	5.7 U	6.3 U	5.4 U
cis-1,3-Dichloropropene	5.8 U	5.7 U	6.3 U	5.4 U
4-Methyl-2-pentanone	12 U	11 U	13 U	11 U
Toluene	5.8 U	5.7 U	6.3 U	5.4 U
trans-1,3-Dichloropropene	5.8 U	5.7 U	6.3 U	5.4 U
1,1,2-Trichloroethane	5.8 U	5.7 U	6.3 U	5.4 U
Tetrachloroethene	5.8 U	5.7 U	6.3 U	5.4 U
2-Hexanone	12 U	11 U	13 U	11 U
Dibromochloromethane	5.8 U	5.7 U	6.3 U	5.4 U
1,2-Dibromoethane	5.8 U	5.7 U	6.3 U	5.4 U
Chlorobenzene	5.8 U	5.7 U	6.3 U	5.4 U
Ethylbenzene	5.8 U	5.7 U	6.3 U	5.4 U
o-Xylene	5.8 U	5.7 U	6.3 U	5.4 U
m,p-Xylene	5.8 U	5.7 U	6.3 U	5.4 U
Styrene	5.8 U	5.7 U	6.3 U	5.4 U
Bromoform	5.8 U	5.7 U	6.3 U	5.4 U
Isopropylbenzene	5.8 U	5.7 U	6.3 U	5.4 U
1,1,2,2-Tetrachloroethane	5.8 U	5.7 U	6.3 U	5.4 U
1,3-Dichlorobenzene	5.8 U	5.7 U	6.3 U	5.4 U
1,4-Dichlorobenzene	5.8 U	5.7 U	6.3 U	5.4 U
1,2-Dichlorobenzene	5.8 U	5.7 U	6.3 U	5.4 U
1,2-Dibromo-3-chloropropane	5.8 U	5.7 U	6.3 U	5.4 U
1,2,4-Trichlorobenzene	5.8 U	5.7 U	6.3 U	5.4 U
1,2,3-Trichlorobenzene	5.8 U	5.7 U	6.3 U	5.4 U
1,2,3-Trichloropropane	5.8 U	5.7 U	6.3 U	5.4 U

Com - Comments. Refer to the corresponding section in the Narrative for each letter.

D1, D2, etc. - Field Duplicate Pairs; FB - Field Blank, EB - Equipment Blank, TB - Trip Blank; BG - Background Sample.

Table 1A: Analytical Results with Qualifications

Lab	CompuChem (LIBRTY)	SDG	Y9SN2	Case	45139	Site	Jervis B. Webb	SOW	SOM01.2			
Sample Location	Y9SP9 (D3) N/A Field_Sample Soil/Low			Y9SQ0 N/A Field_Sample Soil/Low			Y9SQ1 N/A Field_Sample Soil/Low			Y9SQ2 N/A Field_Sample Soil/Low		
Type	1.0	13.88	ug/kg	1.0	19.57	ug/kg	1.0	15.44	ug/kg	1.0	6.19	ug/kg
Matrix/Level												
Dilution Factor												
% Moisture Units												
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Dichlorodifluoromethane	5.4	U		5.3	U		5.2	U		4.9	U	
Chloromethane	5.4	U		5.3	U		5.2	U		4.9	U	
Vinyl chloride	5.4	U		5.3	U		5.2	U		4.9	U	
Bromomethane	5.4	U		5.3	U		5.2	U		4.9	U	
Chloroethane	5.4	U		5.3	U		5.2	U		4.9	U	
Trichlorofluoromethane	5.4	U		5.3	U		5.2	U		4.9	U	
1,1-Dichloroethene	5.4	U		5.3	U		5.2	U		4.9	U	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.4	U		5.3	U		5.2	U		4.9	U	
Acetone	7.3	J	B	6.6	J	B	9.2	J	B	6.5	J	B
Carbon disulfide	5.4	U		5.3	U		5.2	U		4.9	U	
Methyl acetate	5.4	U		5.3	U		5.2	U		4.9	U	
Methylene chloride	5.4	U	C	5.3	U	C	5.2	U		4.9	U	C
trans-1,2-Dichloroethene	5.4	U		5.3	U		5.2	U		4.9	U	
Methyl tert-butyl ether	5.4	U		5.3	U		5.2	U		4.9	U	
1,1-Dichloroethane	5.4	U		5.3	U		5.2	U		4.9	U	
cis-1,2-Dichloroethene	5.4	U		5.3	U		5.2	U		4.9	U	
2-Butanone	11	U		11	U		10	U		9.9	U	
Bromochloromethane	5.4	U		5.3	U		5.2	U		4.9	U	
Chloroform	5.4	U		5.3	U		5.2	U		4.9	U	
1,1,1-Trichloroethane	5.4	U		5.3	U		5.2	U		4.9	U	
Cyclohexane	5.4	U		5.3	U		5.2	U		4.9	U	
Carbon tetrachloride	5.4	U		5.3	U		5.2	U		4.9	U	
Benzene	5.4	U		5.3	U		5.2	U		4.9	U	
1,2-Dichloroethane	5.4	U		5.3	U		5.2	U		4.9	U	
1,4-Dioxane	110	R	A	110	R	A	100	R	A	99	R	A

Lab CompuChem (LIBRTY)	SDG Y9SN2	Case 45139	Site Jervis B. Webb	SOW SOM01.2								
Sample Location Type Matrix/Level	Y9SP9 (D3) N/A Field_Sample Soil/Low	Y9SQ0 N/A Field_Sample Soil/Low	Y9SQ1 N/A Field_Sample Soil/Low	Y9SQ2 N/A Field_Sample Soil/Low								
Dilution Factor % Moisture Units	1.0 13.88 ug/kg	1.0 19.57 ug/kg	1.0 15.44 ug/kg	1.0 6.19 ug/kg								
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Trichloroethene	5.4	U		0.46	J	B	3.9	J	B	10		
Methylcyclohexane	5.4	U		5.3	U		5.2	U		4.9	U	
1,2-Dichloropropane	5.4	U		5.3	U		5.2	U		4.9	U	
Bromodichloromethane	5.4	U		5.3	U		5.2	U		4.9	U	
cis-1,3-Dichloropropene	5.4	U		5.3	U		5.2	U		4.9	U	
4-Methyl-2-pentanone	11	U		11	U		10	U		9.9	U	
Toluene	0.50	J	B	5.3	U		5.2	U		4.9	U	
trans-1,3-Dichloropropene	5.4	U		5.3	U		5.2	U		4.9	U	
1,1,2-Trichloroethane	5.4	U		5.3	U		5.2	U		4.9	U	
Tetrachloroethene	5.4	U		5.3	U		5.2	U		4.9	U	
2-Hexanone	11	U		11	U		10	U		9.9	U	
Dibromochloromethane	5.4	U		5.3	U		5.2	U		4.9	U	
1,2-Dibromoethane	5.4	U		5.3	U		5.2	U		4.9	U	
Chlorobenzene	5.4	U		5.3	U		5.2	U		4.9	U	
Ethylbenzene	5.4	U		5.3	U		5.2	U		4.9	U	
o-Xylene	5.4	U		5.3	U		5.2	U		4.9	U	
m,p-Xylene	5.4	U		5.3	U		5.2	U		4.9	U	
Styrene	5.4	U		5.3	U		5.2	U		4.9	U	
Bromoform	5.4	U		5.3	U		5.2	U		4.9	U	
Isopropylbenzene	5.4	U		5.3	U		5.2	U		4.9	U	
1,1,2,2-Tetrachloroethane	5.4	U		5.3	U		5.2	U		4.9	U	
1,3-Dichlorobenzene	5.4	U		5.3	U		5.2	U		4.9	U	
1,4-Dichlorobenzene	5.4	U		5.3	U		5.2	U		4.9	U	
1,2-Dichlorobenzene	5.4	U		5.3	U		5.2	U		4.9	U	
1,2-Dibromo-3-chloropropane	5.4	U		5.3	U		5.2	U		4.9	U	
1,2,4-Trichlorobenzene	5.4	U		5.3	U		5.2	U		4.9	U	
1,2,3-Trichlorobenzene	5.4	U		5.3	U		5.2	U		4.9	U	
1,2,3-Trichloropropane	5.4	U		5.3	U		5.2	U		4.9	U	

Com - Comments. Refer to the corresponding section in the Narrative for each letter.

D1, D2, etc. - Field Duplicate Pairs; FB - Field Blank, EB - Equipment Blank, TB - Trip Blank; BG - Background Sample.

Table 1A: Analytical Results with Qualifications

Lab CompuChem (LIBRTY)	SDG Y9SN2	Case 45139	Site Jervis B. Webb	SOW SOM01.2								
Sample Location	Y9SW9 N/A Field_Sample Soil/Low			Y9SX0 N/A Field_Sample Soil/Low			Y9SX1 N/A Field_Sample Soil/Low			Y9SX2 N/A Field_Sample Soil/Low		
Type	1.0	11.48	ug/kg	1.0	7.06	ug/kg	1.0	11.18	ug/kg	1.0	22.42	ug/kg
Matrix/Level												
Dilution Factor												
% Moisture Units												
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Dichlorodifluoromethane	5.3	U		6.0	U		5.0	U		5.9	U	
Chloromethane	5.3	U		6.0	U		5.0	U		5.9	U	
Vinyl chloride	5.3	U		6.0	U		5.0	U		5.9	U	
Bromomethane	5.3	U		6.0	U		5.0	U		5.9	U	
Chloroethane	5.3	U		6.0	U		5.0	U		5.9	U	
Trichlorofluoromethane	5.3	U		6.0	U		5.0	U		5.9	U	
1,1-Dichloroethene	5.3	U		6.0	U		5.0	U		5.9	U	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.3	U		6.0	U		5.0	U		5.9	U	
Acetone	8.8	J	B	8.8	J	B	9.9	U	C	12	U	C
Carbon disulfide	5.3	U		6.0	U		5.0	U		5.9	U	
Methyl acetate	5.3	U		6.0	U		5.0	U		5.9	U	
Methylene chloride	5.3	U		6.0	U	C	5.0	U		5.9	U	
trans-1,2-Dichloroethene	5.3	U		6.0	U		5.0	U		5.9	U	
Methyl tert-butyl ether	5.3	U		6.0	U		5.0	U		5.9	U	
1,1-Dichloroethane	5.3	U		6.0	U		5.0	U		5.9	U	
cis-1,2-Dichloroethene	5.3	U		6.0	U		5.0	U		5.9	U	
2-Butanone	11	U		12	U		9.9	U		12	U	
Bromochloromethane	5.3	U		6.0	U		5.0	U		5.9	U	
Chloroform	5.3	U		6.0	U		5.0	U		5.9	U	
1,1,1-Trichloroethane	5.3	U		6.0	U		5.0	U		5.9	U	
Cyclohexane	5.3	U		6.0	U		5.0	U		5.9	U	
Carbon tetrachloride	5.3	U		6.0	U		5.0	U		5.9	U	
Benzene	5.3	U		6.0	U		5.0	U		5.9	U	
1,2-Dichloroethane	5.3	U		6.0	U		5.0	U		5.9	U	
1,4-Dioxane	110	R	A	120	R	A	99	R	A	120	R	A

Lab CompuChem (LIBRTY)	SDG Y9SN2	Case 45139	Site Jervis B. Webb	SOW SOM01.2
Sample Location Type Matrix/Level Dilution Factor % Moisture Units	Y9SW9 N/A Field_Sample Soil/Low 1.0 11.48 ug/kg	Y9SX0 N/A Field_Sample Soil/Low 1.0 7.06 ug/kg	Y9SX1 N/A Field_Sample Soil/Low 1.0 11.18 ug/kg	Y9SX2 N/A Field_Sample Soil/Low 1.0 22.42 ug/kg
Compound	Result Flag Com	Result Flag Com	Result Flag Com	Result Flag Com
Trichloroethene	0.95 J B	6.0 U	5.0 U	5.9 U
Methylcyclohexane	5.3 U	6.0 U	5.0 U	5.9 U
1,2-Dichloropropane	5.3 U	6.0 U	5.0 U	5.9 U
Bromodichloromethane	5.3 U	6.0 U	5.0 U	5.9 U
cis-1,3-Dichloropropene	5.3 U	6.0 U	5.0 U	5.9 U
4-Methyl-2-pentanone	11 U	12 U	9.9 U	12 U
Toluene	0.61 J B	6.0 U	5.0 U	5.9 U
trans-1,3-Dichloropropene	5.3 U	6.0 U	5.0 U	5.9 U
1,1,2-Trichloroethane	5.3 U	6.0 U	5.0 U	5.9 U
Tetrachloroethene	5.3 U	6.0 U	5.0 U	5.9 U
2-Hexanone	11 U	12 U	9.9 U	12 U
Dibromochloromethane	5.3 U	6.0 U	5.0 U	5.9 U
1,2-Dibromoethane	5.3 U	6.0 U	5.0 U	5.9 U
Chlorobenzene	5.3 U	6.0 U	5.0 U	5.9 U
Ethylbenzene	5.3 U	6.0 U	5.0 U	5.9 U
o-Xylene	5.3 U	6.0 U	5.0 U	5.9 U
m,p-Xylene	5.3 U	6.0 U	5.0 U	5.9 U
Styrene	5.3 U	6.0 U	5.0 U	5.9 U
Bromoform	5.3 U	6.0 U	5.0 U	5.9 U
Isopropylbenzene	5.3 U	6.0 U	5.0 U	5.9 U
1,1,2,2-Tetrachloroethane	5.3 U	6.0 U	5.0 U	5.9 U
1,3-Dichlorobenzene	5.3 U	6.0 U	5.0 U	5.9 U
1,4-Dichlorobenzene	5.3 U	6.0 U	5.0 U	5.9 U
1,2-Dichlorobenzene	5.3 U	6.0 U	5.0 U	5.9 U
1,2-Dibromo-3-chloropropane	5.3 U	6.0 U	5.0 U	5.9 U
1,2,4-Trichlorobenzene	5.3 U	6.0 U	5.0 U	5.9 U
1,2,3-Trichlorobenzene	5.3 U	6.0 U	5.0 U	5.9 U
1,2,3-Trichloropropane	5.3 U	6.0 U	5.0 U	5.9 U

Com - Comments. Refer to the corresponding section in the Narrative for each letter.

D1, D2, etc. - Field Duplicate Pairs; FB - Field Blank, EB - Equipment Blank, TB - Trip Blank; BG - Background Sample.

Lab CompuChem (LIBRTY)	SDG Y9SN2	Case 45139	Site Jervis B. Webb	SOW SOM01.2								
Sample Location	VBLKND			VBLKNE			VBLKNG			VHBLKYD		
Type	Method_Blank Soil/Low 1.0 0 ug/kg			Method_Blank Soil/Low 1.0 0 ug/kg			Method_Blank Soil/Low 1.0 0 ug/kg			Storage_Blank Soil/Low 1.0 0 ug/kg		
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Dichlorodifluoromethane	5.0	U		5.0	U		5.0	U		5.0	U	
Chloromethane	5.0	U		5.0	U		5.0	U		5.0	U	
Vinyl chloride	5.0	U		5.0	U		5.0	U		5.0	U	
Bromomethane	5.0	U		5.0	U		5.0	U		5.0	U	
Chloroethane	5.0	U		5.0	U		5.0	U		5.0	U	
Trichlorofluoromethane	5.0	U		5.0	U		5.0	U		5.0	U	
1,1-Dichloroethene	5.0	U		5.0	U		5.0	U		5.0	U	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U		5.0	U		5.0	U		5.0	U	
Acetone	10	U		4.0	J	B	10	U		10	U	
Carbon disulfide	5.0	U		5.0	U		5.0	U		5.0	U	
Methyl acetate	5.0	U		5.0	U		5.0	U		5.0	U	
Methylene chloride	0.65	J	B	5.0	U		1.3	J	B	0.78	J	B
trans-1,2-Dichloroethene	5.0	U		5.0	U		5.0	U		5.0	U	
Methyl tert-butyl ether	5.0	U		5.0	U		5.0	U		5.0	U	
1,1-Dichloroethane	5.0	U		5.0	U		5.0	U		5.0	U	
cis-1,2-Dichloroethene	5.0	U		5.0	U		5.0	U		5.0	U	
2-Butanone	10	U		10	U		10	U		10	U	
Bromochloromethane	5.0	U		5.0	U		5.0	U		5.0	U	
Chloroform	5.0	U		5.0	U		5.0	U		5.0	U	
1,1,1-Trichloroethane	5.0	U		5.0	U		5.0	U		5.0	U	
Cyclohexane	5.0	U		5.0	U		5.0	U		5.0	U	
Carbon tetrachloride	5.0	U		5.0	U		5.0	U		5.0	U	
Benzene	5.0	U		5.0	U		5.0	U		5.0	U	
1,2-Dichloroethane	5.0	U		5.0	U		5.0	U		5.0	U	
1,4-Dioxane	100	R	A	100	R	A	100	R	A	100	R	A

Lab CompuChem (LIBRTY)	SDG Y9SN2	Case 45139	Site Jervis B. Webb	SOW SOM01.2								
Sample Location Type Matrix/Level Dilution Factor % Moisture Units	VBLKND Method_Blank Soil/Low 1.0 0 ug/kg	VBLKNE Method_Blank Soil/Low 1.0 0 ug/kg	VBLKNG Method_Blank Soil/Low 1.0 0 ug/kg	VHBLKYD Storage_Blank Soil/Low 1.0 0 ug/kg								
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Trichloroethene	5.0	U		1.1	J	B	5.0	U		5.0	U	
Methylcyclohexane	5.0	U		5.0	U		5.0	U		5.0	U	
1,2-Dichloropropane	5.0	U		5.0	U		5.0	U		5.0	U	
Bromodichloromethane	5.0	U		5.0	U		5.0	U		5.0	U	
cis-1,3-Dichloropropene	5.0	U		5.0	U		5.0	U		5.0	U	
4-Methyl-2-pentanone	10	U		10	U		10	U		10	U	
Toluene	5.0	U		0.54	J	B	5.0	U		5.0	U	
trans-1,3-Dichloropropene	5.0	U		5.0	U		5.0	U		5.0	U	
1,1,2-Trichloroethane	5.0	U		5.0	U		5.0	U		5.0	U	
Tetrachloroethene	5.0	U		5.0	U		5.0	U		5.0	U	
2-Hexanone	10	U		10	U		10	U		10	U	
Dibromochloromethane	5.0	U		5.0	U		5.0	U		5.0	U	
1,2-Dibromoethane	5.0	U		5.0	U		5.0	U		5.0	U	
Chlorobenzene	5.0	U		5.0	U		5.0	U		5.0	U	
Ethylbenzene	5.0	U		5.0	U		5.0	U		5.0	U	
o-Xylene	5.0	U		5.0	U		5.0	U		5.0	U	
m,p-Xylene	5.0	U		5.0	U		5.0	U		5.0	U	
Styrene	5.0	U		5.0	U		5.0	U		5.0	U	
Bromoform	5.0	U		5.0	U		5.0	U		5.0	U	
Isopropylbenzene	5.0	U		5.0	U		5.0	U		5.0	U	
1,1,2,2-Tetrachloroethane	5.0	U		5.0	U		5.0	U		5.0	U	
1,3-Dichlorobenzene	5.0	U		5.0	U		5.0	U		5.0	U	
1,4-Dichlorobenzene	5.0	U		5.0	U		5.0	U		5.0	U	
1,2-Dichlorobenzene	5.0	U		5.0	U		5.0	U		5.0	U	
1,2-Dibromo-3-chloropropane	5.0	U		5.0	U		5.0	U		5.0	U	
1,2,4-Trichlorobenzene	5.0	U		5.0	U		5.0	U		5.0	U	
1,2,3-Trichlorobenzene	5.0	U		5.0	U		5.0	U		5.0	U	
1,2,3-Trichloropropane	5.0	U		5.0	U		5.0	U		5.0	U	

Com - Comments. Refer to the corresponding section in the Narrative for each letter.

D1, D2, etc. - Field Duplicate Pairs; FB - Field Blank, EB - Equipment Blank, TB - Trip Blank; BG - Background Sample.

TABLE 1B
DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," June 2008.

- U The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.
- J The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.
- R The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

I.J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y9SN2

Lab Name:	COMPUCHEM		Contract:	EPA11032			
Lab Code:	LIBERTY	Case No.:	45139	Mod. Ref No.:	2298.2	SDC No.:	Y9SN2
Matrix:	(SOIL/SED/WATER)	SOIL		Lab Sample ID:	1603023-01		
Sample wt/vol:	5.62	(g/mL)	g	Lab File ID:	1603023-0181.d		
Level:	(TRACE or LOW/MED)	LOW		Date Received:	03/10/2015		
% Moisture: not dec.	6			Date Analyzed:	03/16/2015		
GC Column:	SFB-624	ID:	0.32 (mm)	Dilution Factor:	1.0		
Soil Extract Volume:			(mL)	Soil Aliquot Volume:	(mL)		
CONCENTRATION UNITS:(ug/L or ug/kg)	ug/kg			Purge Volume:	5.0	(mL)	

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	Unknown or Dichlorofluoroethane	8.03	6.1	J/N
02				
03				
04	SL-5/9/15.			
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
6966796*	Total Alkanes	N/A		

EPA-designated Registry Number.

LJ - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYTICS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y9SN2

Lab Name:	COMPUCHEM	Contract:	SPW11032
Lab Code:	LIBERTY Case No.: 45139	Mod. Ref No.: 2298.2	SDC No.: Y9SN2
Matrix:	(SOIL/SED/WATER) SOIL	Lab Sample ID:	1503023-09
Sample wt/vol:	5.46 (g/mL)	Lab File ID:	1503023-0391.d
Level:	(TRACE or LOW/MED) LOR	Date Received:	03/10/2015
% Moisture:	not dec. 21	Date Analyzed:	03/16/2015
GC Column:	SPB-624	ID: 0.32 (mm)	Dilution Factor: 3.0
Soil Extract Volume:	(mL)	Soil Aliquot Volume:	(mL)
CONCENTRATION UNITS: (ug/L or ug/kg)	ug/kg	Purge Volume:	5.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	O
Q1	Unknown-01 Diclorofluormethane	8.04	9.6	JN
Q2				
Q3				
Q4	SL 3/915.			
Q5				
Q6				
Q7				
Q8				
Q9				
Q10				
Q11				
Q12				
Q13				
Q14				
Q15				
Q16				
Q17				
Q18				
Q19				
Q20				
Q21				
Q22				
Q23				
Q24				
Q25				
Q26				
Q27				
Q28				
Q29				
Q30				
2966796	Total Alkanes	N/R		

EPA-designated Registry Number.

SI - FORM I VOC-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y9SN7

Lab Name: COMPUCHEM Contract: EPA11032
 Lab Code: LIBERTY Case No.: 45139 Mod. Ref No.: 2298.2 SDC No.: Y9SN2
 Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 1503023-06
 Sample wt/vol: 5.02 (g/mL) g Lab File ID: 1503023-0681.d
 Level: (TRACE or LOW/MED) LOW Date Received: 03/10/2015
 % Moisture: not dec. 20 Date Analyzed: 03/10/2015
 GC Column: SPI-624 ID: 0.32 (mm) Dilution Factor: 1.0
 Soil Extract Volume: (mL) Soil Aliquot Volume: (mL)
 CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg Purge Volume: 5.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	Unknown- ^a ^b Methylfluoranthene	8.04	3.4	JK
02	Unknown- ^a	12.87	49	JK
03				
04				
05	XL, 5/9/15			
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
2966796*	Total Alkanes	N/A		

EPA-designated Registry Number.

IJ - FORM I VOA-TIC
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y9SN2

Lab Name:	COMPUCHEM	Contract:	EPW11832			
Lab Code:	LIBERTY Case No.:	45139	Mod. Ref No.:	2238.2	SOG No.:	Y9SN2
Matrix:	(SOIL/SED/WATER)	SOIL	Lab Sample ID:	1503023-16		
Sample wt/vol:	5.36 (g/mL)	g	Lab File ID:	1503023-1691.d		
Level:	(TRACE or LOW/MED)	LOW	Date Received:	03/10/2015		
% Moisture:	not dec.	11	Date Analyzed:	03/17/2015		
GC Column:	SPB-624	ID: 0.32 (mm)	Dilution Factor:	1.0		
Soil Extract Volume:	(mL)	Soil Aliquot Volume:	(mL)			
CONCENTRATION UNITS: (ug/L or ug/kg)	ug/kg	Purge Volume:	5.0 (mL)			

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	G
01	Unknown or Di(Chlorofluoromethane)	8.03	6.9	JN
02	alpha-Methylstyrene	10.02	13	ND
03				
04				
05	SL, S915			
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
3966796*	Total Alkanes	N/A		

*EPA-designated Registry Number.

SOM01.2 (8/2007)

232

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y9SN2

Lab Name: COMPUCHEM Contract: SPW11032
 Lab Code: LIRKTY Case No.: 45139 Mod. Ref No.: 2298.2 SOR No.: Y9SN2
 Matrix: (SOIL/SEED/WATER) SOIL Lab Sample ID: 1503023-17
 Sample wt/vol: 4.52 (g/mL) g Lab File ID: 1503023-1791.8
 Level: (TRACE or LOW/MED) LOW Date Received: 03/10/2015
 % Moisture: not dec. 7 Date Analyzed: 03/17/2015
 GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0
 Soil Extract Volume: (mL) Soil Aliquot Volume: (mL)
 CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg Purge Volume: 3.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	O
91	<u>Unknown-01</u>	<u>Unknown-01</u>	<u>8.03</u>	<u>8.8</u>
92	<u>Unknown-02</u>	<u>10.02</u>	<u>9.2</u>	<u>1.8</u>
93				
94				
95		<u>SL 77/3</u>		
96				
97				
98				
99				
100				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30	<u>1996796*</u>	<u>Total Alkanes</u>	<u>N/A</u>	

EPA-Designated Registry Number: